

PROCEEDINGS OF THE ROYAL ENTOMOLOGICAL SOCIETY OF LONDON

SERIES C. JOURNAL OF MEETINGS

VOLUME 24.

No. 6, 1959

ORDINARY MEETING

WEDNESDAY, 7th OCTOBER, 1959, at 5.30 p.m. (Tea 5 p.m.)

AGENDA

1. Confirmation of the Proceedings of the Ordinary Meeting held on 1st July, 1959.
2. Recommendations of candidates for Fellowship. First reading.
3. Recommendations of candidates for Fellowship. Second reading.
4. Announcement of election of new Fellows.
5. Additions to the Library [see p. 23].
6. Admission of Fellows.
7. Exhibits.
8. Communications.

Dr. A. J. Haddow, C.M.G.

Work on the behaviour of bloodsucking Diptera in and
above the tropical rain forest

[ABSTRACT]

In rain forest the clearly defined edges, storeyed structure, stratified nature of the microclimate and abundance of trees with buttress roots are important features. The small-container type of breeding place is particularly well represented, and among resting places large-leaved plants of the undergrowth, tree-holes and recesses between buttresses are favoured. Plants, animals and insects are most abundant and varied in the edges, or where "edge" conditions occur in the interior.

Biting-activity shows a 24-hour cycle in all species so far studied. In some the pattern is similar at all levels, but variation from level to level is common. Not all species show similar behaviour throughout their geographical range.

Certain other activities—oviposition, swarming and flight—are also cyclic, the patterns differing from the biting cycles. Flight patterns of males may differ from those of females.

There is considerable activity by mosquitoes and Tabanids in the free air above the canopy, a zone which may be of importance in relation to dispersal.

Little is known of the mechanisms underlying cyclic behaviour. Better methods of age-grading are urgently needed. Above all a fuller knowledge of host preferences—and of the natural history of the hosts—is required.

NOTICES

Transactions and Proceedings Series A and Series B

Handbooks for the Identification of British Insects

Owing to the dispute in the printing industry and the cessation of printing in June and July the production of the Society's publications has been delayed.

The Society regrets the inconvenience caused by this delay. Every effort is now being made to publish as soon as possible the material which has been held up.

The next meeting will be held on *Wednesday, 4th November, 1959* :

Dr. H. B. D. Kettlewell.—Insect adaptations in Brazil, illustrated by a film in sound and colour, and coloured slides.

PROCEEDINGS OF THE ORDINARY MEETING HELD ON 1ST JULY, 1959

Mr. E. O. PEARSON, Vice-President, in the Chair

Present, 39 Fellows and 4 Visitors.

The minutes of the Ordinary Meeting held on 3rd June were confirmed and signed by the Vice-President.

The names of the following candidates for election were read for the first time : Mr. Narinder Perakash Chopra, M.Sc. ; Mr. Bruce J. Evans ; Mr. John McCallum Deighton ; Mr. John Weston Mills ; Mr. Amirapu Perraju ; Mr. George Buckham Reilly ; Mr. Milton William Shaw, M.Sc. ; Mr. Robert William Taylor, B.Sc. ; and Mr. Edward Farrington Woods.

For the second time (taken as read) : Mr. Lalit Narayan Lal, M.Sc. ; Dr. Niyazi Lodos ; Mr. A. S. McClymont ; Dr. Sebastião J. de Oliveira ; Mr. Ghulam Sarwar Salim ; and Mrs. Navamany Selvarajah.

The Secretary read the names of the following newly elected Fellows of the Society : Mr. Kelvin Duncan Ashforth, Five Acres, Corse, Staunton, Glos. ; Dr. William Geoffrey Harrower Coaton, Division of Entomology, P.O. Box 134, Pretoria, South Africa ; Mr. Friedrich Wolfgang Gess, c/o South African Museum, P.O. Box 61, Cape Town, South Africa ; Mr. Christopher Joseph Horton, 222 Walsall Road, Darlaston, Staffs. ; and Mr. Peter Sydney Tyler, 77 Stoke Poges Lane, Slough, Bucks.

Thanks were voted to donors of gifts to the Library since the last meeting.

The Honorary Secretary, on behalf of **Mr. B. R. Stuckenberg** (Natal Museum, Pietermaritzburg), made the following communication on a species of *Lampromyia* (Diptera : Rhagionidae) with five radial veins in the wing :

"Students of the wing-venation of Diptera have agreed that the primitive number of radial veins in this Order is five. That number is preserved in living forms of the families Tanyderidae and Psychodidae (Nematocera) and has not been recorded in the Suborder Brachycera. In certain species of the Rhagionid genus *Lampromyia* the second radial vein has an angular bend near its apex and at this bend there is usually a short stump which has been interpreted as the basal portion of the otherwise missing R_3 (e.g., Hennig, 1954, *Beitr. Ent.* 4 : 332, fig. 147).

"A male specimen of *Lampromyia* from Namaqualand has been discovered in the collection of the South African Museum, Cape Town. This specimen is the type of a new species which is being described in a forthcoming volume of *South African Animal Life*, and it is unique in possessing the full number of five radial veins. Both wings are identical in this respect and there seems to be no reason why the specimen should be regarded as an aberrant individual. The position of R_3 is exactly the one suggested by the condition in those species of *Lampromyia* mentioned above."

The Hon. Miriam Rothschild showed six slides to illustrate a form of "nettle rash" produced by the imago of the Privet Hawk Moth (*Sphinx ligustri* L.) walking about on the bare arm. She said the rash appears to be due to scales which are rubbed off the moth's body and irritate the skin, combined with surface scratches from the sharp tibial spurs. The rash is more marked if freshly emerged moths are used. The effect may not be entirely mechanical, as it is likely that histamine is present in the tissues of this moth.

Dr. R. O. Brinkhurst gave a paper on alary polymorphism in the Gerroidea (Heteroptera), an abstract of which appeared on page 17.

A short discussion followed in which Professor O. W. Richards asked whether an apterous nymph could always be recognised, to which Dr. Brinkhurst replied that this was possible through all the instars.

In reply to enquiries by Dr. J. S. Kennedy and Miss D. J. Jackson, who pointed out that there was regeneration of flight muscles in some water-beetles, Dr. Brinkhurst said that there was no such regeneration in the Gerroidea.

Various points regarding egg laying and type of ovary in these insects were raised by Professor Richards and Dr. N. Waloff, Professor Richards pointing out that there were two types of insect ovaries, one in which all the egg rudiments were present when the adult emerged, and the other which continued to form eggs all through its life. Dr. Brinkhurst said that when kept in the laboratory the bugs would go on breeding indefinitely, but he found this was not so in the field.

PAUL FREEMAN, *Honorary Secretary.*

ADDITIONS TO THE LIBRARY

Presented

- Bellin, J. N., & Hogue, C. L. A review of the crabhole mosquitoes of the genus *Deinocerites* (Diptera: Culicidae). *Univ. Calif. Publ. Ent.* **14**: 411-58, 1959. [The Publishers.]
- Campbell, F. L., ed. *Physiology of insect development*. 8vo. Chicago: Univ. Pr., 1959. [*The Developmental Biology Conference Series*, 1956.] [The Publishers.]
- Kirby, W. F. *European butterflies and moths*. 4to. London, 1889. [Dr. H. Nockolds.]
- MacLeod, R. D. *Keys to the names of British butterflies and moths*. 8vo. London: Pitman, 1959. [The Publishers.]
- Studies in invertebrate morphology published in honour of Dr. R. E. Snodgrass on the occasion of his eighty-fourth birthday, July 5, 1959. *Smithson. misc. Coll.* **137**: 1-416, 1959. [The Publishers.]

Purchased

- Hicks, E. A. *Check-list and bibliography on the occurrence of insects in birds' nests*. 8vo. Ames: Iowa St. Univ. Pr. [1958.]
- Hoffmann, A. *Coléoptères Curculionides*. 3me partie. 8vo. Paris: Lechevalier, 1958. [*Faune de France* **62**.]
- Hughes, T. E. *Mites or the acari*. 8vo. London: Athlone Pr., 1959.
- Johnson, P. T. *A classification of the Siphonaptera of South America*. 8vo. Washington, 1957. [*Mem. ent. Soc. Wash.* **5**.]
- Nielsen, A. A comparative study of the genital segments and their appendages in male Trichoptera. *Biol. Skr.* **8** (5): 1-159, 1957.
- Novak, V. J. A. *Insekten-hormone*. 8vo. Prag: Akad. Wiss., 1959.
- Olberg, G. *Das Verhalten der solitären Wespen Mitteleuropas*. 8vo. Berlin: Deutsch. Verlag Wiss., 1959.
- Pierre, F. *Écologie et peuplement entomologique des sables vifs du Sahara nord-occidental*. 8vo. Paris: Centre nat. Recherche sci., 1958.
- Proceedings of the Tenth International Congress of Entomology, Montreal, August 17-25, 1956*. 4 vols. 8vo. Ottawa, 1958.
- Swatschek, B. *Die Larvalsystematik der Wickler (Tortricidae u. Carposinidae)*. 8vo. Berlin: Akad. Verlag, 1958. [*Abh. z. Larvalsyst. Insekten* **3**.]

In addition, separates have been presented by Mr. B. Jobling; Dr. C. A. Clarke; Dr. L. G. Higgins; Dr. D. J. Lewis; The Hon. Miriam Rothschild; Anti-Locust Research Centre; Commonwealth Institute of Entomology; State Plant Board of Florida; Dr. C. S. Carbonell; Mr. D. Boocock; Birmingham Natural History & Philosophical Society; Nature Conservancy; Companhia des Diamantes de Angola; Mr. N. C. E. Miller; Dr. C. A. Edwards; Dr. A. Kansu; Smithsonian Institution; E.A.T.R.O., Tororo; Mr. H. T. Pagden; Mr. W. B. Broughton; United States Department of Agriculture; Mr. W. H. Potts; Dr. N. E. Hickin; Dr. I. Harpaz; Dr. W. Büttiker; West African Institute for Trypanosomiasis Research; Director of Agriculture, British Guiana; American Entomological Society; Ministry of Agriculture, London; Dr. E. Handschin; Dr. W. Peters; Miss E. N. Marks; Dr. J. J. H. Szent-Ivany; Professor D. M. Davies; Dr. S. D. Agarwala; Lt.-Col. F. C. Fraser; Freshwater Biological Association and Dr. G. O. Stride.